Remarks

The undersigned's Remarks are preceded by related comments of the Examiner, presented in small bold-faced type.

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Applicant's arguments, see Remarks page 1, filed 20 June 2005, with respect to various objections to the specification have been fully considered and are persuasive.

The objections to the specification have been withdrawn in view of applicant's amendments.

Applicant's arguments with respect to the rejection of claim 8 under 35 U.S.C. 112, second paragraph, are found to be persuasive, and as such that rejection is withdrawn. * * *

Applicant's arguments, see Pages 2-7, filed 20 June 2005, with respect to the rejection(s) of claim(s) 7-11 and 32-41 under 35 U.S.C. 103(a) have been fully considered and are persuasive in view of applicant's amendments. * * *

The undersigned thanks the Examiner for his consideration of the prior remarks and withdrawal of rejections and objections.

It is noted by examiner that applicant admits at least implicitly on page 3 of Remarks that the applicant's invention is directed to automatically performing the placement of the views in the second window or layout. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the term "automatically arranging the layout") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). In any case, applicant's claim is limited (by its very wording) to "automatically reposition the views" with respect to each other.

The undersigned is confused as to where it is that the Examiner believes the undersigned has relied on the term "automatically arranging the layout." Page 3 of the undersigned's June 16, 2005 Response is a listing of claims and, as recognized by the Examiner, does not include the phrase "automatically arranging the layout." The undersigned has also not found this phrase on the third page of the Remarks section (i.e., page 11 of the June 16, 2005 Response). Further clarification is requested. In any case, it is respectfully submitted that the undersigned does not rely on the phrase "automatically arranging the layout", or a similar phrase, for allowance of the claims, but rather, as is conventional practice, relies on the combination of all elements recited in the claims and the interrelationships of such elements in the recited combinations.

It is further noted by examiner that it is well established that it is not invention to automate

an activity previously done manually. A close reading of the relevant case law, namely In re Venner, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958), shows that simply because a computer (or broadly, "automated means", which in the case of Venner happened to be a timer) is used to perform a step previously performed by a human being (in Venner, the step was determining when to release the relevant engine part from the mold) does not make it patentable or non-obvious (see MPEP 2106 and specifically 2144.04, section (III)). Further, the obviousness rejection in that case was upheld at least partially because the user of the system still had to choose the point at which the timer was initiated, so even though automatic means were used to release the mold, the user still had to initiate the process. Therefore, on both grounds - both broadly that automatically positioning views as applicant recites is merely automating an activity previously manually done by a user is per se only automating a previously manual activity, and that specifically in respect to Venner, that the present step is still initiated by the user at a time of the user's choosing, and the user chooses which views will be repositioned, and (although the claim does not specifically say so) the user (as is well known in the CAD art) can / could choose the transformations applied to the views in question. As such, the activity is still manual in nature, with only a small step converted to an automatic action by a computer, even though a user operating a general-purpose computer specifically programmed to operate in a CAD system mode per se performs the method.

The undersigned respectfully submits that the inventions claimed in the present application are not related merely to the automating of an activity previously performed manually. In particular, any suggestion that the automatic creation of a new drawing layout using transformation matrices as recited by the present claims was previously known as a "manual" operation is respectfully traversed. The undersigned and applicant are not aware of, and the Examiner has not shown any objective evidence of, previous systems (whether manual or computerized) that automatically created drawing layouts by the application of transformation matrices as recited by the combination of elements set forth in the claims of the present invention. Furthermore, it is respectfully submitted that the simplistic automation at issue in Venner is inapposite to the invention at issue in this matter. In Venner, the invention at issue merely combined "old permanent-mold structures together with a timer and solenoid which automatically actuates the known pressure valve system to release the inner core after a predetermined time has elapsed." In Venner the alleged automation was simply applying pressure by a timer controlled solenoid instead of (presumably) by a human to a known point on a mold to release a part from a mold - - thus the part's release was being performed in a manner substantially identical to the non-automated system (i.e., an application of pressure to a known point). In the present case, however, there has been no objective evidence of any "manual" system that applied transformation matrices to create layouts in which multiple views of a model are combined for display in drawing layouts as set forth the in the claims. Nor is there any suggestion of any

knowledge whatsoever of a method that includes "automatically creating a new drawing layout by using a transformation matrix to reposition the first view and the second view to form a second drawing layout in which the first and second views occupy new positions relative to each other so as to maintain simultaneous visibility of the first and second views within a currently displayed area of the graphical user interface window" as recited by claim 29. As such, there is no suggestion that what is recited by the claims of the present invention are so like any manual system as to be within the holding of Venner. Accordingly, it is respectfully submitted that the Venner analysis is not appropriately applied in the present matter.

> **Finally, applicant's arguments with respect to "obviousness" and Official Notice are inapposite. Examiner did not take Official Notice, and there is no indication within the previous Office Action that such Notice had been taken. Therefore, all of the cited material and arguments to that respect are moot.**

The Examiner is thanked for the clarification as to whether or not official notice was previously take with respect to prior rejections of the claimed inventions.

> **Applicant further states on page 3 of the Remarks that such amendments are made to further clarify the subject matter and to clarify other points. That statement constitutes an admission that such amendments were made pursuant to examiner's requirements or rejections, e.g. made to satisfy requirements or overcome rejections under 35 U.S.C. 101, 112, 102, or 103 et al, with respect to patentability. Such an admission sets forth a bar and creates a prosecution history estoppel, as per Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 535 U.S. 722, 122 S.Ct. 1831, 1838, 62, USPQ2d 1705, 1710 (2002) and further in Festo III and Festo VIII (see MPEP 2173.02 supra). Further, under that doctrine, such admissions also prohibit the use of any arguments related to subject matter that has been canceled on appeal from a Final Rejection by examiner to either the BPAI or the CAFC. Applicant is warned that any attempt to use such argument must at minimum set forth how it overcomes the presumption of Festo as set forth above or the Appeal Brief will be held to be defective. Examiner is presenting the arguments that will be used as the basis in the Examiner's Answer if required, along with the legal underpinnings of such reasoning. If applicant wishes to use a Graham v. Deere analysis, examiner will provide a more detailed, itemized breakdown in the Answer. Finally, applicant is put on notice that any After-Final Amendment that does not traverse all arguments by examiner will simply not be entered.**
>
> **Applicant's representative is encouraged to call the examiner to arrange for a telephonic interview to further discuss the details of this case.**

The Examiner's characterization of the Festo case is respectfully traversed. In particular, the undersigned refutes the Examiner's position that Festo stands for the proposition that an amendment is an "admission [that] sets forth a bar and creates a prosecution history estoppel." More particularly, as pointed out in MPEP 2173.02, Rev. 2, May 2004, where there is a narrowing amendment for purposes of patentability "estoppel may apply." The Court's language

that estoppel "may" apply is not nearly so restrictive as the Examiner's suggestion that an amendment is an "admission" that sets forth a bar and creates a prosecution history estoppel. In Festo, the Supreme Court adopted a "foreseeability" test with regard to the creation of estoppel and not a hard-line conclusion as suggested by the Examiner. In any event, it is respectfully submitted that consideration of Festo's applicability need not be addressed at this time as it is believed that the application of the Festo doctrine is not relevant to prosecution issues currently before the Office, but is more appropriately considered, if at all, by a court of law.

> **Claim Rejections - 35 USC § 112**
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> **The following is a quotation of the second paragraph of 35 U.S.C. 112:**
>
> **The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.**
>
> **Claims 29-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**
>
> **Claim 29 recites the limitation "the first graphical user interface window" in the second clause after the preamble. There is insufficient antecedent basis for this limitation in the claim.**

Claim 29 has been amended to correct the deficiency noted by the Examiner.

> * * *
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> **Claims 7-9, 29, 31, 34-36, 39, and 41-42 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hanratty in view of Watanabe et al (US 5,701,403)(`Watanabe')(eligible under 35 U.S.C. 102(b)).**
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> **Claims 7 and 29 are both method claims with some minor variations in language as discussed below. Therefore it is proper to treat them in the same pass. The system / apparatus limitations of claim 39 are simply a further discussion of the requirements of a computer. However, those will be addressed in a separate addendum below. Otherwise, the system simply implements the method(s) of claim(s) 7 and/or 29, and as such simply converts the general-purpose computer of the first clause of claim 39 to become a specific computer that executes the next recited steps, and as such that is not a patentable distinction.**

To the extent that the Examiner does not address each element in claims 7 and 29, and the relationships between elements within each such claim, the undersigned respectfully traverses the Examiner's suggestion that claims 7 and 29 may be treated "in the same pass." For example, claim 29 recites automatically creating a new drawing layout "in which the first and second views occupy new positions relative to each other so as to maintain simultaneous visibility of the first and second views within a currently displayed area of the graphical user interface window."

This element is not found in claim 7 and, accordingly, it must be distinctly addressed. Furthermore, this element, and its relationship to other elements within claim 29, must also be separately and distinctly addressed.

A problem with the "same pass" approach is seen in the present Action where, e.g., the Examiner has alluded to the use of simultaneously displayed items (presumably to touch on the foregoing phrase in claim 29). However, presumably due to the Examiner's "same pass" approach and focus on claim 7, the Office Action has not fully addressed where in the prior art the full extent of the claim 29 phrase "in which the first and second views occupy new positions relative to each other so as to maintain simultaneous visibility of the first and second views within a currently displayed area of the graphical user interface window" is found. As such, the undersigned is left without a sufficient understanding of the reason for rejection of claim 29 and, for this reason, if the Examiner does not allow the claims, it is respectfully requested that the Examiner withdraw the finality of the rejection and issue a new Action fully addressing the limitations of claim 29. While the undersigned certainly recognizes the Examiner's desire to improve efficiency by attempting to combine analysis of different claims, it is respectfully submitted that an independent analysis of the claims would provide the undersigned and applicant with clearer guidance as to the reasons for rejection (particularly where, as for claims 7 and 29, there are stated distinctions between the limitations) thus more fully meeting the "completeness and clarity" standards set forth in MPEP § 707.07 and 37 CFR 1.104.

> **The rejection(s) of the parent claim(s) as set forth below are automatically incorporated by reference in the rejection of all dependent claim(s). As to claim 7, A computer-implemented method of providing for different arrangements of a plurality of views of a three-dimensional model, the method comprising: ((Hanratty 1:10-35, 3:10-55)(Watanabe abstract, 1:5-20). Preamble only recites an intended use, and is thusly ignored as per In re Hirao, since the method steps can stand alone)**
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> **-Displaying the plurality of views in a graphical user interface (GUI) window in an arrangement ...**

As a preliminary matter, it is noted that in the claims of the present application, views are displayed in both <u>first</u> and <u>second</u> drawing layouts. While Hanratty and Watanabe may make use of a display mechanism which could be argued to be similar to the "first" claimed layout, Hanratty and Watanabe do not have a *second* drawing layout as recited by the present claims. For example, Watanabe FIGs. 22(a) and (b) show before and after illustrations *of the <u>same</u> window*

wherein a reference element (ellipse 201) is used to arrange a target object 202, and reference elements 211 and 212 are used to arrange the target object 213. As further explained below, other distinctions also exist.

-Selecting for inclusion in a second drawing layout at least a first and a second view ...

Hanratty teaches identifying relationships amongst entities contained in view sets (7:24-26). Contrary to the Examiner's suggestion, Hanratty does not select entities for inclusion in a second drawing layout as is claimed in the present application. Rather, Hanratty's selection of entities is to establish a boundary of a view set (7:14-17) to aid in the generation of a three-dimensional solid model (3:30-43). Hanratty simply does not teach selecting views for inclusion in a second drawing layout. For at least the reason that Hanratty does not teach selecting for inclusion in a second drawing layout at least a first and a second view from the plurality of views, a rejection under § 103 is not supported in light of the referenced sections of prior art and it is respectfully requested that the § 103 rejection be withdrawn.

-Forming a second drawing layout ... by applying a transformation matrix to views represented in the first layout ...

Hanratty teaches that a user may manually organize a view set or determine the view set during the design process (6:11-20). The organization involves grouping drawing elements and "designat[ing] those elements as a separate, unique view set." Hanratty does not discuss forming a second layout. Instead, Hanratty is concerned with identifying views in a *single* layout in order to generate a three-dimensional solid model from the two-dimensional views in the *single* layout. This is contrary to the present application that is aware of the makeup of the individual views in a layout and forms a *second* layout that consists of views from the *first* layout. Hanratty does not teach forming a second layout. Watanbe likewise appears to rely on the use of a single layout and this reliance is shown in a number of figures illustrating how a view is aligned in a single layout. For example, figure 22(a) shows *the same viewing area* before and after a cylinder is aligned with a reference figure that is a circle. Likewise, Figure 22 (b) shows *the same viewing area* before and after a block is aligned with a reference figure consisting of two lines joined to form a corner. Because neither Hanratty or Watanabe show forming a second drawing layout comprising the selected views in the first layout wherein said second drawing layout is formed by applying a

transformation matrix to views represented in the first layout to automatically reposition the views for display in the second drawing layout, a rejection under § 103 is not supported in light of the referenced sections of prior art and it is respectfully requested that the § 103 rejection be withdrawn.

> **Further, as applied above, the Watanabe reference sets forth that the views in Figure 29(a) have 4x4 transformational matrices applied to them to map them into the their new views - 36:60-37:57, and provides a flowchart explaining these limitations in Figure 30, with appropriate explanations provided in 37:58-39:10.**
>
> **Reference Hanratty clearly teaches most of the limitations - see the rest of the paragraph for details - but does not explicitly teach transforming multiple views automatically in the manner suggested by the instant claim. Clearly, as set forth above, in Fig. 3 Hanratty teaches the display of a plurality of views of a drawing, and that the software will automatically select the plan view as the first view set forth above. Then the user can manually select other desired view(s) or have the software perform that tasking, as set forth above. Clearly, in Fig. 3 various views are shown arranged around the plan view, as the above-cited sections of Hanratty clearly suggest that they would be. Additionally, there is a 1:1 correspondence between Fig. 5 of applicant's drawings and Fig. 3 of Hanratty - same number of views presented, etc.). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Hanratty to allow the user to move the multiple views of the object in one window around, as Hanratty clearly establishes that the views can be presented in multiple windows (6:8-40) or in one window (Fig. 3), but this modification would be implicit.**

For at least the reasons set forth above, the undersigned respectfully traverses the assertion that Hanratty "clearly teaches most of the limitations". For example, Hanratty does not teach selecting for inclusion in a second drawing layout at least a first and a second view nor does Hanratty teach forming the second drawing layout.

> * * *
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> **It would have been obvious to combine the system of Hanratty with that of Watanabe because Watanabe provides additional mechanisms for manipulating objects, automatically creating views and intersecting planes, makes generating three-dimensional objects from two-dimensional drawings, and various other advantages as enumerated in 47:48-48:67, which would obviously improve the system of Hanratty.**

The Examiner's suggestion that it would be obvious to combine Hanratty with Watanabe is respectfully traversed. It is respectfully submitted that it would not be obvious to combine Hanratty and Watanabe because Hanratty analyzes two-dimensional views for the purpose of constructing a three-dimensional model while Watanabe's disclosure is directed to a different technology and application – in particular, Watanabe uses reference elements to transform a three-dimensional object within the same viewing area. In contrast to both Hanratty and

Watanabe, the present application creates a second drawing layout comprised of a first and a second view that are present in a first drawing layout. Furthermore, it is respectfully submitted that any motivation to combine Hanratty with Watanabe to yield the inventions of the present application come only from the present application itself – such a motivation is an impermissible application of hindsight reasoning. See, generally, MPEP § 2141.

> **As to claim 29,**
>
> **The claim is substantially similar to claim 7, with the only differences as follows: claim 7 is drawn to arranging views, whereas claim 29 is drawing to rearranging views. Since the preamble only summarizes the claim limitations, it is not being given weight (A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).). Therefore, this distinction is meaningless.**
>
> **The second difference is that claim 29 automatically creates a new drawing layout with the views in proximity to each other, with at least one in a new location on the computer screen. Firstly, claim 7 recites that one of the views is moved in closer proximity to the other. Obviously, the repositioned or moved view has been moved to a new location on the computer screen. Thusly, the only difference is that a new drawing layout is created. This is a trivially obvious variant, as displaying the results of a new drawing process in another window is well known in the art.**

The Examiner's position is respectfully traversed. Among the differences in claim 29 is the element requiring "automatically creating a new drawing layout by using a transformation matrix to reposition the first view and the second view to form a second drawing layout in which the first and second views occupy new positions relative to each other so as to maintain simultaneous visibility of the first and second views within a currently displayed area of the graphical user interface window." This limitation would require, e.g., that first and second views remain simultaneously visible while, e.g., other regions of a drawing canvas on which they are displayed are scrolled in and out of a visible region of a viewing window, e.g., by the use of scroll bars. Claim 7 does not address the issue of maintaining simultaneous visibility of first and second views within a currently displayed area of a graphical user interface window.

> **Further, Hanratty clearly establishes that drawings can be in multiple windows (6:8-40) or in one window (Fig. 3), which means that in light of Fig. 3 and the fact that the views are independent of each other, putting the results in a new window would be obvious, particularly that Hanratty teaches that during automated processing, if the system finds that a TCS does not exist for the section of the solid that it is operating on, the system creates new one (11:65-12:31). This clearly establishes that the software creates new data structures if**

one does not exist. As such, it would be trivially obvious to open a new window and display the newly repositioned multiple views as recited above, and prima facie such views would be in new screen locations as set forth above.

The Examiner, in his comments, suggests that because Hanratty creates a Topological Constraint Set (TCS), it is clearly established that "it would be trivially obvious to open a new window and display the newly positioned multiple views." This is not the case. As understood by the undersigned and applicant, Hanratty's Topological Constraint Set is not a data structure that defines a display object such as a window or newly positioned multiple views and, accordingly, does not support the proposition referenced by the Examiner. As previously explained, Hanratty analyzes two-dimensional views for the purpose of constructing a three-dimensional model. The Topological Constraint Set is a data structure that contains information that identifies multiple entities that share a relation such as a tangent relation. The Topological Constraint Set aids in the creation of a three-dimensional model from the two-dimensional elements. Thus, it is respectfully submitted that the examiner's assertion that the creation of a Topological Constraint Set makes it "prima facie such views would be in new screen locations" is not in keeping with Hanratty's disclosure and is not taught or suggested by Hanratty. Accordingly, it is respectfully submitted that the Examiner's reference to Hanratty does not support a rejection of the claims under § 103.

* * *

As to claim 39, the additional limitations concern the nature of the computer are met in for example Watanabe Figure 2, where the recited. computer is shown, with the graphical user interface 1 ("user interface 1 is embodied by an input device and a graphics display included in the computer"), (drawing) data processing section (e.g. processor) 8 ("...8 is embodied by a CPU and programs included in a computer such as a workstation... ")(inherently requires a storage device or memory), and drawing data base 9 (storage means or device). Programs are inherently stored on said storage device as noted above. See Watanabe 13:21-14:14. The rejections to claims 7 and 29 are herein incorporated by reference in their entirety for motivation, combination, and their content.

The Examiner's reasons for rejection of claim 39 are, in substance, duplicative of the reasons for rejection stated with respect to claims 7 and 29. For the reasons stated above with respect to claims 7 and 29, it is respectfully submitted that claim 39 is allowable over the prior art.

Conclusions

Claims 7 and 29 have been amended. Claims 7-11 and 29-46 are now pending and believed to be in condition for allowance. Applicant respectfully requests that all pending claims be allowed.

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Respectfully submitted,

Date: Nov 9, 2005

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